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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,060	09/29/2000	Krishna Kishore Dhara	Dhara 2-2-1	1685
46363	7590	03/08/2006	EXAMINER	
PATTERSON & SHERIDAN, LLP/ LUCENT TECHNOLOGIES, INC 595 SHREWSBURY AVENUE SHREWSBURY, NJ 07702			PHAN, TRI H	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/677,060

Applicant(s)

DHARA ET AL.

Examiner

Tri H. Phan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment/Arguments

1. This Office Action is in response to the Response/Amendment filed on November 9th, 2005. Claims 1-39 are now pending in the application.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-39 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,879,582 (hereinafter refer as ‘9582’). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

For claims 1-39, the claims 1-8 of the U.S. Patent ‘9582’ disclose an apparatus for providing bifurcated voice and signaling data over a network, comprising:

- a memory, for storing protocols for interfacing with the network; and
- a processor, coupled to said memory, for segregating signaling traffic and related voice traffic including information useful in establishing a communications link, for transporting said voice traffic between a calling party and called party, and for transmitting said voice traffic and

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said signaling traffic via different communication channels, wherein said voice traffic is switched to the same communication channel as said signaling traffic in the case of a loss of local power (see claim 1).

wherein one of said communication channels is a data packet network (see claim 2).

wherein said voice traffic is carried by said data packet network (see claim 3).

wherein said voice traffic is subject to compression processing compatible with said data packet network (see claim 4).

wherein one of said communication channels is a wireless network (see claim 5).

wherein said **signaling** traffic is carried by said **wireless** network (see claim 6).

wherein said apparatus comprises a Media Terminal Adapter-Cellular Transceiver (MTA-T) having integrated MTA and CT portions (see claim 7).

wherein said apparatus comprises a Media Terminal Adapter-Cellular Transceiver (MTA-CT) having non-integrated MTA and CT portions (see claim 8).

The claims 9-16 of the U.S. Patent '9582' disclose an apparatus for providing bifurcated voice and signaling data over a network, comprising:

a memory, for storing protocols for interfacing with the network; and

a processor, coupled to the memory, for identifying a call request, for establishing a signaling link for transporting signaling traffic to a switch via a first transport medium, and for establishing a voice path for transporting voice traffic to the switch via a second transport medium responsive to a determination that a called party answers, wherein said voice traffic is switched to the same medium as said signaling traffic in the case of a loss of local power (see claim 9).

wherein the first medium is a wireless medium (see claim 10).

wherein said **signaling** traffic is carried by said **wireless** medium (see claim 11).

wherein said second medium is a data packet network (see claim 12).

wherein said voice traffic is carried by said data packet network (see claim 13).

wherein said voice traffic is subject to compression processing compatible with said data packet network (see claim 14).

wherein said apparatus comprises a Media Terminal Adapter-Cellular Transceiver (MTA-CT) having integrated MTA and CT portions (see claim 15).

wherein said apparatus comprises a Media Terminal Adapter-Cellular Transceiver (MTA-CT) having non-integrated MTA and CT portions (see claim 16).

For claims 1-39, the claims 1-16 of the U.S. Patent '9582' disclose all the subject matter of the claimed invention with the exception of using the controller in the base station system, means for performing packet/circuit switched conversion, and the computer readable medium storing a software program to perform method disclosed. However, the patent '9582' does disclose about the switch for switching between different channels or transport medium, e.g. wireless or data packet network, when the local power is lost; wherein it is obvious that a "controller" must exist for controlling the switching between channels or mediums and where the base station system is obvious in the wireless network. It is also obvious that a means for packet/circuit switched conversion must exist for converting from one protocol to another different protocol, e.g. from data packet network to wireless network and vice versa. It is also obvious that the software program must exist in the switch in order for the processor to perform the switching method as disclosed. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to provide the software program and controller for performing the switching, as well as the means for converting between different protocols when switching between different networks. The motivation for using software program, controller and means for conversion in the system of the claims 1-16 of the U.S. Patent '9582' being that it provides a need for switching technique from one network to different network, e.g. data packet to circuit switch network and vice versa.

It also notes that the claimed invention of the U.S. Patent '9582' claims disclose the apparatus claims, wherein the claimed invention of the application claims disclose the method claims for the same subject matter as system and method for transporting bifurcated voice and signaling data over the network.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7 and 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by **Chen et al.** (U.S. 5,943,408; hereinafter refer as '**Chen**').

- In regard to claim 1, Chen discloses, *a method of transporting bifurcated voice and signaling data over a network* (figure 3) *comprising the steps of identifying at a subscriber device* (home interface unit 'HIU') *for each communication link to be established, respective signaling data and voice data* (for example see figures 3-4; col. 5, lines 45-53; col. 6, lines 31-36, 44-50) *and transmitting from the subscriber device said signaling data via a first network and said voice data via a second network, wherein the first network is different from the second network* (for example see figures 3-4; col. 5, lines 45-64 where the cellular or wireless network for the digital signaling link is different from the transport network for the voice, fax, or voice-band data link).

- Regarding claims 2-3, in addition to features in base claim 1 (see rationales pertaining the rejection of base claim 1 discussed above), Chen further discloses *wherein said first network is a wireless network* (for example see col. 5, lines 54-59); *wherein said second network is a data packet network* (for example see col. 5, lines 48-51).

- In regard to claims 4-5 and 7, in addition to features in base claim 1 (see rationales pertaining the rejection of base claim 1 discussed above), Chen further discloses *step of communicating said signaling data to a switch* (call server 13 in figure 3); *step of communicating said voice data to a switch* (Access Telecommunication Switch 'ATS' 14 in figure 3). Chen does disclose about the direct signaling link can be a cellular link or a wireless link; where the *base station system* inherently exists in the wireless network for transporting the communication between ends.

- Regarding claim 23, Chen discloses, *a method for transporting bifurcated voice and signaling traffic between a calling party and called party in a communication system (figure 3) comprising the steps of identifying at a subscriber device a call request (for example see col. 6, lines 31-36); establishing a signaling link from the subscriber device to a switch via a first transport network (for example see figure 3; col. 54-59) and establishing a voice path from the subscriber device to said switch via a second transport network responsive to a determination that said called party answers, said first transport network being different from said second transport network (for example see figures 3-4; col. 5, lines 45-64 where the cellular or wireless network for the digital signaling link is different from the transport network for the voice, fax, or voice-band data link).*

- In regard to claims 24-25, in addition to features in base claim 23 (see rationales pertaining the rejection of base claim 23 discussed above), Chen further discloses *wherein said first network is a wireless network and wherein signaling traffic is transmitted over said wireless network (for example see col. 5, lines 54-59).*

- Regarding claims 26-27, in addition to features in base claim 23 (see rationales pertaining the rejection of base claim 23 discussed above), Chen further discloses *wherein said second network is a data packet network and wherein voice traffic is communicated over said data packet network (for example see col. 5, lines 48-51).*

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-13, 15-18, 20-21, 30-31 and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chen et al.** (U.S.5,943,408).

- Regarding claims 11 and 35-36, Chen discloses, *a computer software program (for example see col. 12, line 26-28) and method for transporting bifurcated voice and signaling traffic over a network in a communication system (figure 3) comprising the steps of segregating at a subscriber device (home interface unit 'HIU') signaling traffic and related voice traffic including information useful in establishing a communications link for transporting said voice traffic between a calling party and a called party (for example see figures 3-4; col. 5, lines 45-53; col. 6, lines 31-36, 44-50) and transmitting from the subscriber device said voice traffic, said voice traffic and said signaling traffic being carried via different communication networks (for example see figures 3-4; col. 5, lines 45-64 where the cellular or wireless network for the digital signaling link is different from the transport network for the voice, fax, or voice-band data link).* Chen lacks to explicitly disclose about the transmission voice traffic via said communication link established by "*a controller*". However, to transmitting the signaling information via the digital signaling link (col. 5, lines 54-59) and user information such as voice, fax, or voice-band data

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link via the transport network (col. 5, lines 60-64), the controller is designed in the HIU 12 to process the switching functionality (“*a switch*”) in routing and transporting user information to the networks.

Thus it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to use the controller in the Chen’s HIU to process the routing and transport of user information to the networks.

- In regard to claims 12-13 and 38, in addition to features in base claims 11 and 35 (see rationales pertaining the rejection of base claims 11 and 35 discussed above), Chen further discloses *wherein one of said communication networks is a data packet network* (for example see col. 5, lines 48-51) *and wherein one of said communication networks is a data packet network* (for example see col. 5, lines 48-51).

- Regarding claims 15-16 and 37, in addition to features in base claims 11 and 35 (see rationales pertaining the rejection of base claims 11 and 35 discussed above), Chen further discloses *wherein one of said communication networks is a wireless network and wherein said signaling traffic is carried by said wireless network* (for example see col. 5, lines 54-59).

- In regard to claims 17-18, in addition to features in base claim 11 (see rationales pertaining the rejection of base claim 11 discussed above), Chen further discloses *wherein said controller is a switch* (‘HIU’ in figure 3 where the HIU is acted as a switch in handling all the signaling and user information to/from networks). Chen does disclose about the direct signaling

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link can be a cellular link or a wireless link; but lacks to explicitly disclose about “*the base station system*” where said signaling traffic is transmitted via. However, in order to transport the signaling information through the wireless network, the base station system is provided for routing and transporting information between cells in the wireless network.

Thus it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to use the base station system in the Chen’s wireless network for routing and transporting information between cells in the wireless network.

- In regard to claims 9-10, 20-21, 30-31, Chen discloses all the subject matter of the method of claims 1, 11, 23 as discussed above and in part 4 of this office action, including the direct signaling link between the HIU and the call server can be a cellular link or a wireless link (“*Cellular transceiver ‘CT’ portion*”) and the transport link between the CPE and HIU or between the HIU and the ATS (“*Media Terminal Adapter ‘MTA’ portion*”); but lacks to explicitly disclosed about *the ‘MTA-CT’ having integrated MTA and CT portions or having non-integrated MTA and CT portions*. However, to have MTA and CT integrated or not is a matter of design choice because both integration and non-integrated have an advantage and a disadvantage. For example, integration of MTA and CT will reduce the total cost and space but it may be harder to upgrade.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have integrated MTA and CT portions and non-integrated MTA and CT portions to meet specific needs.

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7. Claims 6, 8, 14, 19, 28, 32-34 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chen et al.** (U.S.5,943,408) in view of **Hamalainen et al.** (U.S.5,802,465; hereinafter refer as '**Hamalainen**').

- In regard to claims 6, 14, 28 and 39, Chen discloses the method of claims 1, 11, 23 and 35. However, Chen lacks what Hamalainen discloses, that is *said voice data is subject to compression processing compatible with a wireless network* (col. 6, lines 58-62 where the data compressed is taken to be voice data). It would have been obvious to one with ordinary skill in the art at the time of the invention was made to include the compression of voice data with the method of claims 1, 11 and 23 for minimizing the amount of data transmitted across the interface as disclosed in Hamalainen: col. 6, lines 54-58.

- Regarding claims 8 and 19, Chen discloses the method of claims 1 and 11. However, Chen lacks what Hamalainen discloses, that is *said step of communicating is made via a means adapted to perform packet to circuit switched conversion and vice versa* (figure 1B where the MSC acts as a packet switch for the wireless system). It would have been obvious to one with ordinary skill in the art at the time of the invention was made to include the communicating via a switch with the Chen's method of claims 1 and 11 with the motivation for providing the protocol conversion when transporting information between circuit and packet switched networks.

- In regard to claim 32, Chen discloses, a communications system (see figure 3) comprising a subscriber device for providing bifurcated voice and signaling traffic over a

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network (home interface unit 'HIU' in figure 3); but lacks what Hamalainen discloses, that is *means for converting data packets to circuit switched traffic and vice versa* (figure 1B where the MSC acts as a packet switch for the wireless system). It would have been obvious to one with ordinary skill in the art at the time of the invention was made to include the means for converting the data packets to/from the circuit switched traffic into the Chen's communicating via a switch, with the motivation for providing the protocol conversion when transporting information between circuit and packet switched networks.

- Regarding claims 33-34, Chen does disclose about the direct signaling link between the HIU and the call server can be a cellular link or a wireless link ("*Cellular transceiver 'CT' portion*") and the transport link between the CPE and HIU or between the HIU and the ATS ("*Media Terminal Adapter 'MTA' portion*"); but lacks to explicitly disclosed about *the 'MTA-CT' having integrated MTA and CT portions or having non-integrated MTA and CT portions*. However, to have MTA and CT integrated or not is a matter of design choice because both integration and non-integrated have an advantage and a disadvantage. For example, integration of MTA and CT will reduce the total cost and space but it may be harder to upgrade.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have integrated MTA and CT portions and non-integrated MTA and CT portions to meet specific needs.

Response to Arguments

8. Applicant's arguments filed on November 9th, 2005 with respect to claims 1-39 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

9. Claims 22 and 29 would be allowable if rewritten or amended to overcome the rejection(s) under Double Patenting set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bressler et al. (U.S.6,584,190), **Shenoda et al.** (U.S.6,389,130) and **Dhara et al.** (U.S.6,879,582) are all cited to show devices and methods for improving the signaling control in the telecommunication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272-3126.

Any response to this action should be mailed to:

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Washington, D.C. 20231

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(571) 273-8300

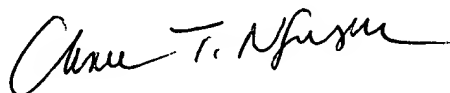
Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tri H. Phan
March 3, 2006



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